AMENDMENTS IN THE CLAIMS

Please amend the claims without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as to equivalents as follows:

1. (Original) A method for delivering a gene in a system for delivering DNA specifically to tumor tissues under anaerobic conditions, wherein a bacterium belonging to the genus *Bifidobacterium* is used as a gene delivery vector and then the DNA delivered specifically to tumor tissues under anaerobic conditions is expressed in said tumor tissues.

2. (Original) A method for delivering a gene in a system for delivering DNA specifically to tumor tissues under anaerobic conditions, wherein a bacterium belonging to the genus *Bifidobacterium* and having the DNA coding for a protein which has a higher activity than in its parent strain is used as a gene delivery vector and then the DNA delivered specifically to tumor tissues under anaerobic conditions is expressed in said tumor tissues.

3. (Original) A method for delivering a gene in a system for delivering DNA specifically to tumor tissues under anaerobic conditions, wherein a bacterium belonging to the genus *Bifidobacterium* transformed with a recombinant DNA having said DNA is used as a gene delivery vector and the DNA delivered specifically to tumor tissues under anaerobic conditions is expressed in the tumor tissues.

4. (Original) The method as claimed in any one of Claims 1 to 3, wherein the DNA is selected from the group consisting of:

(a) DNA coding for a protein having an antitumor activity, and

(b) DNA coding for a protein having an activity of converting a precursor of an antitumor substance into the antitumor substance.

5. (Original) The method as claimed in Claim 4, wherein the protein having an antitumor activity is interleukin-2.

6. (Original) The method as claimed in Claim 4, wherein the precursor of an antitumor substance is selected from the group consisting of 5-fluorocytosine, 5-aziridino-2,4-dinitrobenzamide, ganciclovir, a glucuronic acid-conjugated antitumor substance and a lysine-conjugated antitumor substance.

7. (Original) The method as claimed in Claim 4, wherein the protein having the activity of converting a precursor of an antitumor substance into the antitumor substance is a protein

selected from the group consisting of cytosine deaminase, nitroreductase, herpes simplex virus type 1 thymidine kinase and β-glucuronidase.

8. (Original) The method as claimed in Claim 3, wherein the recombinant DNA is an expression vector.

9. (Original) The method as claimed in Claim 8, wherein the expression vector has a promoter and a terminator functioning in a bacterium belonging to the genus *Bifidobacterium*.

10. (Original) The method as claimed in Claim 9, wherein the promoter and terminator are those involved in expressing a gene coding for histone-like DNA-binding protein (HU protein) derived from *Bifidobacterium longum*.

11. (Original) The method as claimed in Claim 9, wherein the promoter and terminator are DNAs located at the 1- to 192-positions and at the 472- to 600-positions respectively in the nucleotide sequence set forth in SEQ ID NO: 1.

12. (Currently amended) The method as claimed in any one of Claims 1 to ~~11~~ 3, wherein the bacterium is *Bifidobacterium longum*.

13. (Currently amended) The method as claimed in any one of Claims 1 to ~~4 or 6 to 12~~ 3, wherein the bacterium is *Bifidobacterium longum* 105-A/pBLES100-S-eCD (FERM BP-7274).

14. (Currently amended) A method for expressing a gene coding for a protein having an antitumor activity in tissue tumors specifically, which comprises use of the bacterium as claimed in any one of Claims 1 to ~~5 or 8 to 12~~ 3.

15. (Currently amended) A method for expressing a gene coding for a protein having the activity of converting a precursor of an antitumor substance into the antitumor substance in tissue tumors specifically, which comprises use of the bacterium as claimed in any one of Claims 1 to ~~4 or 6 to 12~~ 3.

16. (Currently amended) A pharmaceutical composition comprising the bacterium as claimed in any one of Claims 1 to ~~13~~ 3.

17. (Currently amended) The pharmaceutical composition as claimed in Claim 16, ~~wherein the pharmaceutical composition comprises a combination of the bacterium as claimed in any one of Claims 1 to 4 or 6 to 13 and~~ further comprising the precursor of an antitumor substance.

18. (Currently amended) The pharmaceutical composition as claimed in Claim 16, ~~wherein the pharmaceutical composition comprises the bacterium as claimed in any one of Claims 1 to 4 or 6 to 13 and~~ further comprising the precursor of an antitumor substance.

19. (Currently amended) The pharmaceutical composition as claimed in ~~any one of Claims~~ Claim 16 ~~to 19~~, wherein the bacterium is *Bifidobacterium longum*.

20. (Currently amended) The pharmaceutical composition as claimed in ~~any one of Claims~~ Claim 16 ~~to 19~~, wherein bacterium is *Bifidobacterium longum* 105-A/pBLES100-S-eCD (FERM BP-7274).

21. (Currently amended) A bacterium belonging to the genus *Bifidobacterium*, which is used in the method as claimed in any one of Claims 1 to ~~13~~ 3.

22. (Original) *Bifidobacterium longum* 105-A/pBLES100-S-eCD (FERM BP-7274.

23. (Original) DNA having the nucleotide sequence set forth in SEQ ID NO: 1.

24. (Currently amended) A method of treating a solid tumor, which comprises use of the method as claimed in any one of Claims 1 to ~~15~~ 3.

25. (Currently amended) A method of treating a solid tumor, which comprises administering the bacterium as claimed in any one of Claims 1 to ~~4 or 6 to 13~~ 3 in combination with the precursor of an antitumor substance.

26. (Original) An anaerobic bacterium belonging to the genus *Bifidobacterium* capable of expressing a gene coding for a protein having an antitumor activity in only cancer cells under substantially anaerobic conditions.

27. (Original) An anaerobic bacterium belonging to the genus *Bifidobacterium* capable of expressing a gene coding for a protein having the activity of converting a precursor of an antitumor substance with low toxicity to humans and animals into an antitumor substance in only cancer cells under substantially anaerobic conditions.